

A base station modulator/demodulator for constituting a mobile communication system and sending ATM cells to a higher rank station and receiving ATM cells from the higher rank station is provided. The base station modulator/demodulator comprises: receive means for terminating, among ATM cells received from the higher rank station through a leased line, ATM cells addressed to the base station; first send means for sending, among the ATM cells received from the higher rank station through the leased line, ATM cells addressed to another base station to the another base station; and second send means for multiplexing ATM cells of a plurality of base stations, the base station and the another base station, and sending the multiplexed cells to the higher rank station through the leased line. By virtue of the above construction, for a base station wherein the usable band of the ATM cell between the base station and the higher rank station has been reduced due to a reduction in size/reduction in capacity of the base station, ATM cells of a plurality of base stations are logically multiplexed in a leased line between the base station and the higher rank station, the master base station terminates the ATM cell addressed thereto, and, at the same time, the send of ATM cell to a slave base station and the receive of ATM cell from the slave base station can be realized, whereby the waste of the leased line can be eliminated.